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Joining the Party

Exploring the Impact of Bingocize®

by Heath M. Burton, Ph.D. and Dixie Stanforth, Ph.D., FACSM

A GAME-CHANGER

In the quiet halls of a senior living facility, where the sound of bingo chips competes with the silence of an unused exercise room, a revolutionary idea emerged: Bingocize®. This innovative program blends bingo, exercise, and health education to empower older adults to improve their health and quality of life. By interspersing functional movements with the traditional game of letters and numbers, Bingocize® combines a beloved activity with physical movement, while fostering a sense of community. Research shows that this structure increases both adherence and efficacy of exercise programs (1,2).

More than just a game, Bingocize® is an evidence-based program that enhances mobility, independence, and health knowledge through interactive gameplay. The brilliance of Bingocize® lies in its integration of physical activity and health promotion with an activity that participants already perform and enjoy—bingo. By leveraging the familiar and fun nature of bingo, the program effectively engages participants who might otherwise be resistant to exercise. This strategic approach not only boosts physical health but also addresses the holistic well-being of participants, fostering the social connections crucial for healthy aging. This column aims to tell the story of Bingocize® and provide interested readers with the information needed to get involved with this growing program.

THE STORY BEHIND BINGOCIZE®

In 2011, Jason Crandall, Ph.D., ACSM-EP, EIM, a professor at a small liberal arts college, Kentucky Wesleyan College, stumbled upon an unexpected opportunity. Crandall's students carefully planned an exercise program for a local independent living facility as part of a class project. However, on the day they implemented the program, a popular bingo game down the hall drew more participants, leading to a disappointing turnout. Undeterred, Crandall saw potential in combining the allure of bingo with the benefits of exercise. He coined the term "Bingocize," developing this novel program for the community. The response was immediate and encouraging. As Crandall recalls, "I created a program that combined exercise and bingo, and after marketing the new Bingocize® program, 15 people showed up for the students. I quickly realized I had something." This initial success sparked a journey that has grown to impact communities nationwide and even reached international audiences.

From these humble beginnings, Bingocize® rapidly gained attention and support. The program's growth was marked by significant milestones that validated both the approach and effectiveness. Approvals from the National Council on Aging (NCOA) and inclusion in the United States Department of Agriculture's (USDA's) Supplemental Nutrition Assistance Program Education (SNAP-Ed) toolkit provided pivotal validation, which substantiated Bingocize® as an effective falls prevention and obesity management program. These endorsements not only provided credibility but also facilitated further expansion and funding opportunities. Bingocize® was then included in the list of programs receiving Title III-D funding. Being near the top of the list due to its name starting with "B," it began to quickly gain professional attention. As word spread, Bingocize® exponentially expanded its reach. Today, there are Bingocize® programs in 47 states and it has crossed international borders, impacting communities in Canada, England, Finland, and Poland. This remarkable growth is a testament to its pioneering approach, proven effectiveness, and the universal appeal of combining fun with fitness.

CHALLENGES AND TRIUMPHS

The path to success for Bingocize® was not without its challenges. In the early days, Crandall faced significant hurdles, primarily in securing funding and overcoming skepticism about the program's perceived simplicity. As he recounts, "The Bingocize® name and idea sounds very simple and silly. People, even many colleagues, didn't think it was "serious research". It has taken many years to prove them wrong." Despite these obstacles, Crandall persevered, driven by his belief in the program's potential. He obtained a small grant from a local hospital to collect

Box 1: Health Outcomes from Bingocize® (3–5)

- Improved lower/upper body strength, gait, balance, and range of motion
- Improved confidence and reduced fear of falling
- Improved aspects of cognition (executive function)
- Increased social engagement
- Improved knowledge of COVID-19 prevention and other important health topics
- Improved patient activation

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Box 2: What are the evidence-based program review process criteria?

Health promotion and disease prevention programs are evaluated through the Evidence-Based Program Review Process based on the following criteria established by the Administration for Community Living:

- Demonstrated through evaluation to be effective for improving the health and well-being or reducing disease, disability, and/or injury among older adults; and
- Proven effective with older adult population, using Experimental or Quasi-Experimental Design; and
- Research results published in a peer-review journal; and
- Fully translated in one or more community site(s); and
- Includes developed dissemination products that are available to the public.
- For more information on these criteria visit: https://www.ncoa.org/article/guidelines-for-operationalizing-acl-criteria-for-*evidence*-based-programs

preliminary data, which laid the foundation for future research. This initial step was crucial in establishing the scientific basis for Bingocize's effectiveness.

Crandall's persistence paid off when he was able to secure more substantial external funding, including an NIH R15 award. This support was instrumental in expanding the research base for Bingocize® and demonstrating measurable health benefits (see Box 1).

The culmination of these efforts came in 2018 when Bingocize® was recognized as an evidence-based falls prevention program by the NCOA. This accomplishment was followed by its inclusion as an obesity prevention program in the USDA's SNAP-Ed toolkit in 2019, underscoring the program's significant health benefits and outcomes. Personal stories, supplied by numerous participant testimonials, put a face on the positive impact of Bingocize®. Check out this video for a sample success story: https://www.youtube.com/watch?v=2wcYzwCyKMM.

The journey to achieve these approvals was not easy. It involved an extensive review process by the Administration of Community Living (ACL) and NCOA and included an initial failed approval. Undeterred, Crandall and his team dedicated 2 years of focused work to meet the stringent criteria required for evidence-based programs. Their persistence ultimately led to the approvals and access to Title III-D of the Older Americans Act (OAA). The OAA provides grants for programs, like Bingocize®, that support healthy lifestyles and promote healthy behaviors, opening new avenues for program implementation and research, and ultimately helping more individuals. For more information about these criteria check out Box 2

BINGOCIZE®: MORE THAN JUST A GAME

Crandall did not envision Bingocize® as a final destination, explaining "Bingocize® was designed as a stepping stone to get people going and doing other things as they build their fitness." By making exercise enjoyable and accessible, Bingocize® helps participants build confidence in their physical abilities, which can lead to greater participation in other forms of physical activity (3). The program's evolving structure is crafted to ensure that participants not only enjoy the engaging and social aspects of bingo but also reap the benefits of physical activity and health education. At its core, Bingocize® sessions involve a modified version of bingo where various physical activities are interspersed between the traditional calling of bingo numbers. These exercises are tailored for older adults, ensuring accessibility and safety while promoting physical activity.

Additionally, sessions include health education workshops, covering crucial topics such as fall prevention, nutrition, and immune support. These workshops provide valuable information that empower participants to make healthier lifestyle choices, extending the impact of Bingocize® beyond the game sessions themselves. See Box 3 for a sample listing of exercises and health outcomes that are targeted in each session.

BINGOCIZE® ACROSS THE SPECTRUM OF CARE

One of the key strengths of Bingocize® is its adaptability and inclusivity. The program is designed to serve individuals across the spectrum of care. Originally designed for older adults living independently, Bingocize® has evolved to suit various care settings

Box 3: Sample Session

Here are some examples of the exercises included in the program. Each session consists of 12 or more exercises.

Program component	Exercises
Warm-up	Walking in place
Flexibility	Single-arm crossover
Cardiovascular fitness	Walking in place
	Walking in facility
Lower body strengthening	Heel raises with one hand on chair
	Leg extension
	Hip adduction/abduction
	Ankle flex while standing
Upper body strengthening	Bicep curl
	Chest flies
	Chest press
	Lateral raises
Balance exercises	Side step
	Walking in place
	Stagger stance
	Grapevine
	Static balance (single-leg stance)
Cool-down	Flexibility exercises

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like assisted living facilities, memory care units, and senior centers. It accommodates different physical abilities and care needs, with exercises adaptable for wheelchair users or those with limited mobility, ensuring safe and effective participation for everyone. To further enhance engagement and accessibility, Bingocize® has embraced technology through the introduction of a web-based application for Bingocize®. The Bingocize® web-based game ensures that the benefits of Bingocize® can be enjoyed by a broader audience, regardless of their physical location or mobility constraints and was a pivotal development in the spread of the program abroad.

Facilitator support and training are simplified with access to comprehensive training materials and organizational management tools for on-site facilitators. The web-based game also enhances the participant experience by offering opportunities to win prizes and access health content seamlessly. This technological advancement also has been particularly valuable in expanding the program's reach and maintaining engagement during times when in-person gatherings may be challenging. For example, during the peak of the COVID-19 pandemic, Bingocize® implementation continued without interruption. This accessibility was crucial because reduced physical activity during this period worsened health issues in many communities. Watch clips from a Bingocize® session here: https://www.youtube.com/watch?v=ncI6-djNf6E.

GROWING BINGOCIZE® WITH VITAL PARTNERSHIPS

The growth and success of Bingocize® can be attributed to its strong foundation of community and partnerships. From the outset, collaborative efforts with universities, healthcare organizations, and government agencies have been instrumental in boosting Bingocize® and broadening its impact.

Partnerships with colleges and universities have provided valuable research support and have been crucial in training facilitators to deliver the program effectively. These academic collaborations have ensured that Bingocize® remains grounded in evidence-based practices, continuously improving and adapting based on the latest research findings. Partnering with faculty and students has increased the efficacy of the social interaction aim of this program, bringing in college students to form an intergenerational social environment benefitting all involved.

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Healthcare organizations, particularly healthcare and exercise professionals within the communities where these older adults live, have embraced Bingocize® as an innovative tool. By incorporating Bingocize®, these organizations have been able to offer a fun, engaging, and effective means of improving health outcomes for their patients and clients. This collaboration also has facilitated the dissemination of Bingocize® to a wider audience, reaching individuals who may not have otherwise had access to such a program.

Government agencies have played a pivotal role in endorsing and supporting Bingocize®. Endorsements from reputable organizations like the NCOA and USDA lends significant credibility, recognition, and respect due to their established standards and rigorous oversight. The Bingocize® team regularly submits data on each initiative, ensuring that each initiative consistently acts in the best interest of the communities they serve. The associated funding allows Bingocize® to continue to grow and evolve with new ways to serve its participants.

The impact of these partnerships is best illustrated through the numerous testimonials and success stories from Bingocize® communities. Participants often express how the program has transformed their lives by enhancing their physical health, boosting their confidence, and fostering a sense of community. Facilitators and program organizers also share how they have integrated Bingocize® seamlessly into their existing structures, making it a versatile and impactful addition to their offerings.

THE FUTURE OF BINGOCIZE®

Bingocize® continues to grow and expand its reach. New adaptations cater to even more diverse populations and care settings, ensuring the program remains relevant and effective in addressing the ever-changing health challenges among older adults. Plans for global expansion are underway, with efforts to introduce Bingocize® to new countries and cultures. New research initiatives are on the horizon, exploring potential benefits in areas such as diabetes, pediatric physical activity promotion,

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and universal wellness for people of all ages with disabilities. This work will not only contribute to the growing body of evidence supporting Bingocize® but also will inform future program development and adaptations.

Additionally, there are ongoing efforts to enhance the technological aspects of Bingocize®, including improvements to the online platform and its mobile application. These technological advancements will make the program even more accessible and engaging for participants, while also providing valuable data for research and program evaluation. For example, Crandall is working on transitioning the facilitator training to a more user-friendly learning management system. This change will reduce barriers to training, ensure more consistent implementation, and address the challenges posed by rapid staff turnover at some facilities.

FROM SIMPLE IDEA TO GLOBAL SUCCESS

Bingocize® has revolutionized how some approach aging and wellness. By combining fun with fitness and education, it not only improves health outcomes but also fosters a sense of community and belonging among older adults.

The program's success lies in its ability to simultaneously address multiple aspects of health and well-being. By making exercise enjoyable and social, Bingocize® overcomes many barriers that prevent older adults from engaging in regular physical activity. The added component of health education empowers participants with knowledge that can lead to lasting lifestyle changes.

Its accessibility and proven benefits make Bingocize® a worthwhile endeavor for any community. As the global population continues to age, innovative approaches like Bingocize® will play an increasingly crucial role in promoting healthy aging and maintaining quality of life for older adults.

The story of Bingocize® serves as an inspiration for researchers, healthcare providers, exercise professionals, and community leaders. It demonstrates that with creativity, persistence, and a genuine desire to improve lives, it's possible to develop interventions that are both effective and enjoyable. As Crandall says, "A good idea is a good idea no matter how simple it sounds." As Bingocize® continues to grow and evolve, it stands as a shining example of how we can bring people to the party of health and wellness, one bingo card at a time.

For exercise professionals, especially those working with older adults, Bingocize® offers a unique and engaging way to boost your clients' physical and social well-being. Bingocize® addresses common challenges in senior fitness programs, offering a fun way to increase participation and adherence. It's structured, adaptable format is a strategic way to meet clients' functional mobility needs while fostering a sense of community among participants. If you or someone you know is interested in implementing Bingocize®, Crandall's team has set up an inquiry form that can be found here or by scanning the QR code below.

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